

Appendix A

List of References and Bibliography

A-1 Required References

29 CFR 1910

29 CFR 1926

TI 814-1. Water Supply

TI 814-3. Water Distribution

TM 5-813-5. Water Supply, Water Distribution

TM 5-813-9. Water Supply: Pumping Stations

ER 385-1-92. Safety and Occupational Health Document Requirements for Hazardous, Toxic, and Radioactive Waste (HTRW) and Ordnance and Explosive Waste (OWE) Activities

ER 1110-345-700. Design Analysis, Drawings and Specifications

EM 385-1-1. Safety and Health Requirements Manual

EM 1110-1-4000. Monitoring Well Design, Installation, and Documentation at Hazardous, Toxic and Radioactive Waste Sites

EM 1110-1-4008. Liquid Process Piping

EM 1110-2-1914. Design, Construction, and Maintenance of Relief Wells

CEGS 02510. Water Distribution System.

CEGS 11212. Pumps, Water: Vertical Turbine

CEGS 11242. Chemical Feed Systems

CEGS 13405, Liquid Process Control

A-2 Related Publications

CEGS 02521. Water Wells

CEGS 02522. Groundwater Monitoring Wells

ER 1110-1-263. Chemical Data Quality Management for Hazardous, Toxic, Radioactive Waste Remediation Activities

ER 1165-2-132. Hazardous, Toxic, and Radioactive Waste (HTRW) Guidance for Civil Works Projects

a. Literature references.

- Alford, G., and Cullimore, D.R. 1999. *The Application of Heat and Chemicals in the Control of Biofouling Events in Wells*, CRC Press Lewis Publishers, Boca Raton, FL.
- APHA-AWWA-AWRA. 1998. *Standard Methods for the Examination of Water and Wastewater*, 20th ed., American Public Health Association, Washington, DC.
- Australian Drilling Industry Training Committee Limited. 1997. *Drilling - The Manual of Methods, Applications and Management*, Boca Raton, Lewis Publishers, 615 p.
- Borch, M.A., Smith, S.A., and Noble, L.N. 1993. "Evaluation and Restoration of Water Supply Wells," NGWA for AWWA Research Foundation, Denver, CO.
- Boulding, J.R. 1995. *Soil, Vadose Zone, and Ground-Water Contamination*, CRC Press Lewis Publishers, Boca Raton, FL.
- Bouwer, H., and Rice, R.C. 1976. "A Slug Test for Determining Hydraulic Conductivity of Unconfined Aquifers with Completely or Partially Penetrating Wells." Water Resources Research 12(3): 423-433.
- Campbell, M.D. and Lehr, J.H. 1973. *Water Well Technology*, McGraw-Hill, New York.
- Cullimore, D.R. 1993. *Practical Groundwater Microbiology*, Lewis Publishers, Boca Raton, FL.
- Cullimore, R., and Legault, T. 1997. "Microbiological Investigations of Water Wells in the Municipal District of Kneehill, Alberta," Droycon Bioconcepts Incorporated, Regina, Saskatchewan.
- Deb, A.K., J.K. Snyder, J.J. Chelius, J. Urie, and D.K. O'Day. 1990. *Assessment of Existing and Developing Water Main Rehabilitation Practices*, AWWA Research Foundation, Denver, CO.
- Domenico, P.A., and Schwartz, F.W. 1990. *Physical and Chemical Hydrogeology*, John Wiley & Sons, .
- Driscoll, F.G. 1986. *Groundwater and Wells*, Johnson Div., St. Paul, MN.
- Ehrhardt, G., and Pelzer, R. 1992. Wirkung von Saugstromsteuerungen in Bohrbrunnen. *bbr* - Heft 10/92. (Function of in-flow rectification in bore wells). English translation available, Kabelwerk Eupen AG, Eupen, Belgium.
- Gariboglio, M.A. and S.A. Smith. 1993. *Corrosión e incrustación microbiológica en sistemas de captación y conducción de agua: aspectos teóricos y aplicados*. Serie Investigaciones Aplicadas, Argentine Consejo Federal de Inversiones, Buenos Aires, Argentina, 99 pp.
- Helweg, O.J., Scott, V.H., and W.C. Scalmanini. 1983. *Improving Well and Pump Efficiency*, AWWA, Denver, CO.
- Howsam, P., Missteers, B., and Jones, C. 1995. "Monitoring, Maintenance and Rehabilitation of Water Supply Boreholes," Report 137, Construction Industry Research and Information Association, London, U.K., 113 pp.

Hvorslev, M.J. 1951. "Time Lag and Soil Permeability in Ground-Water Observations," Bulletin No. 36, U.S. Army Corps of Engineers, Waterways Experiment Station, Vicksburg, MS.

Kissane, J.A., and Leach, R.E. 1993. "Redevelopment of Relief Wells, Upper Wood River Drainage and Levee District, Madison County, Illinois," Technical Report REMR-GT-16, U.S. Army Corps of Engineers, Waterways Experiment Station, Vicksburg, MS.

Kruseman, G.P., and Ridder, N.A. 1994. *Analysis and Evaluation of Pumping Test Data*, ILRI Publication 47, International Institute for Land Reclamation and Improvement, Wageningen, The Netherlands.

Labadie, J.W., and Helweg, O.J. 1975. "Step-Drawdown Test Analysis by Computer," *Groundwater* 13(5): 438 - 444.

Leach, R.E., Mikell, A., Richardson, C., and Alford, G. 1991. "Rehabilitation of Monitoring, Production and Recharge Wells," , CETHA-TS-CR-91077, U.S. Army Toxic and Hazardous Materials Agency, Aberdeen Proving Grounds, MD, pp 623-646.

Little, B.J., Wagner, P.A., and Mansfield, F. 1997. *Corrosion Testing Made Easy: Microbially Induced Corrosion*, NACE International, Houston, TX.

McLaughlan, R.G. 1996. "Water Well Deterioration," Technology Transfer Publication 1/96, National Centre for Groundwater Management, Sydney, Australia, 99 pp.

MINTEQ (U.S. EPA).Center for Exposure Assessment Modeling (CEAM), Athens, GA 30605-2700).

National Ground Water Association. 1998. *Manual of Water Well Construction Practices*, Westerville, OH.

Nuzman, C.E. 1989. "Well Hydraulic Flow Concept," *Recent Advances in Ground-Water Hydrology*, American Institute of Hydrology, Minneapolis, MN.

Parkhurst, D.L., Plummer, L.N., and Thostenson, D.C. 1982. "BALANCE -- A Computer Program for Calculating Mass Transfer for Geochemical Reactions in Ground Water," Water Resources Investigations 82-14, U.S. Geological Survey, Reston, VA.

Powers, J.P. 1992. *Construction Dewatering*, Wiley-Interscience, New York.

Roscoe Moss Company. 1992. *Water Well Development*, Wiley-Interscience, New York.

Smith, S.A. 1992. *Methods for Monitoring Iron and Manganese Biofouling in Water Supply Wells*, AWWA Research Foundation, Denver, CO (96 pp).

Smith, S.A. 1995. *Monitoring and Remediation Wells: Problem Prevention, Maintenance and Rehabilitation*, CRC Lewis Publishers, Boca Raton, FL (183 pp).

Smith, S.A. 1996. "Monitoring Biofouling in Source and Treated Waters: Status of Available Methods and Recommendations for Standard Guide," *Sampling Environmental Media*, ASTM STP 1282, J.H. Morgan, ed., American Society for Testing and Materials, West Conshohocken, PA, pp. 158-175.

Sutherland, D.C., Howsam, P., and Morris, J. 1994. "The Cost-Effectiveness of Monitoring and Maintenance Strategies Associated with Groundwater Abstraction - A Methodology for Evaluation," ODA Project Report 5478A, Silsoe College, Silsoe, Bedford, U.K.

Truesdell, A.H., and Jones, B.F. 1974. "WATEQ, A Computer Program for Calculating Chemical Equilibria in Natural Waters," *USGS Journal of Research* 2(2): 233-248.

Tuhela, L., Smith, S.A., and Tuovinen, O.H. 1993. "Flow-Cell Apparatus for Monitoring Iron Biofouling in Water Wells," *Groundwater* 31:982-988.

Walton, W.C. 1996. *Aquifer Test Analysis with WINDOWS Software*, Boca Raton, Lewis Publishers, 301 pp.

b. Internet. The internet (specifically the World Wide Web) contains sources of information not necessarily published. The following were consulted, and should remain stable and available for reference.

<http://www.arcc.net/> Alford, Rogers, Cullimore Concept Inc. information on BCHT well remediation process.

<http://www.groundwatersystems.com> Smith-Comeskey Groundwater Science well maintenance and rehabilitation information area.

<http://www.ngwa.org> National Groundwater Association (literature database).

<http://www.dbi.sk.ca> Droycon Bioconcepts (University of Regina) information on biological well clogging and deterioration.

c. Concensus Standards. These are a partial listing of AWWA and ASTM Test Methods, Standard Tests, and Standard Guides relevant to this work. They are offered as references for procedures to consult and not necessarily as authoritative.

(1) AWWA.

AWWA B300, Chlorine.

AWWA B303, Potassium Permanganate.

ANSI/AWWA C503. Wet Barrel Fire Hydrants.

ANSI/AWWA C657-97. Well Chlorination.

ANSI/AWWA C654-97. Disinfection of Wells.

(2) ASTM.

A589-95a Standard Specification for Seamless and Welded Carbon Steel Water-Well Pipe.

D421 Standard Practice for Dry Preparation of Soil Samples for Particle-Size Analysis and Determination of Soil Constants.

D422 Standard Test Method for Particle-Size Analysis of Soils.

D 932 Test Method for Iron Bacteria in Water and Water-Formed Deposits.

D 4043-96 Standard Guide for Selection of Aquifer-Test Method in Determining of Hydraulic Properties by Well Techniques.

D 4044-96 Standard Test Method for (Field Procedure) for Instantaneous Change in Head (Slug) Tests for Determining Hydraulic Properties of Aquifers.

D 4050 Standard Test Method (Field Procedure) for Withdrawal and Injection Well Tests for Determining Hydraulic Properties of Aquifer Systems.

D 4104 Standard Test Method (Analytical Procedure) for Determining Transmissivity of Nonleaky Confined Aquifers by Overdamping Well Response to Instantaneous Change in Head (Slug Test).

D 4750 Test method for determining subsurface liquid levels in a borehole or monitoring well.

D 5088 Standard practice for decontamination of field equipment used at non-radioactive waste sites.

D 5092 Standard practice for design and installation of ground-water monitoring wells in granular aquifers.

D 5472 Standard test material for determining specific capacity and estimating transmissivity at the control wells.

D 5521 Standard guide for development of ground water monitoring wells in granular aquifers.

D5753-95 Standard Guide for Planning and Conducting Borehole Geophysical Logging.

D5786-95 Standard Practice for (Field Procedure) for Constant Drawdown Tests in Flowing Wells for Determining Hydraulic Properties of Aquifer Systems.

D5903-96 Standard Guide for Planning and Preparing for a Groundwater Sampling Event.

D5911-96 Standard Practice for Minimum Set of Data Elements to Identify a Soil Sampling Site.

D 5978 Standard Guide for Maintenance and Rehabilitation of Ground-Water Monitoring Wells.

D5979-96 Standard Guide for Conceptualization and Characterization of Ground-Water Systems.

D5980-96 Standard Guide for Selection and Documentation of Existing Wells for Use in Environmental Site Characterization and Monitoring.

D6034-96 Standard Test Method (Analytical Procedure) for Determining the Efficiency of a Production Well in a Confined Aquifer from a Constant Rate Pumping Test.

D6089-97 Standard Guide for Documenting a Ground-Water Sampling Event.

(3) NSF

ANSI/NSF Standard 61 Drinking Water System Components -- Health Effects. NSF International, Ann Arbor, MI.